

## CLAIM AMENDMENTS

1.-33. (Cancelled)

34. (New) A method comprising:

providing wavelet coefficients that indicate an image, the bits of each wavelet coefficient being associated with a different bit order so that each bit order is associated with one of the bits of each wavelet coefficient;

expressing the wavelet coefficients in signed binary representation;

determining whether a rate of coded bits exceed a predetermined bit rate; and

generating the coded bits to indicate zerotree roots that are associated with the bit orders and regulating the generation based on whether the rate exceeds the predetermined bit rate.

35. (New) The method of claim 34, wherein each bit order is associated with only one of the bits of each wavelet coefficient.

36. (New) The method of claim 34, wherein the act of coding the bits comprises:

determining which of the bits indicate zeros; and

classifying each zero as either an isolated zero or a zerotree root.

37. (New) The method of claim 36, wherein some of the wavelet coefficients are descendants of some of the other wavelet coefficients, and wherein the act of determining comprises:

traversing a descendant tree from a bit associated with one of said some of the wavelet coefficients to bits associated with said other wavelet coefficients to locate the zerotree roots.

38. (New) The method of claim 34, wherein the act of providing comprises:  
producing different levels of the code, each level being associated with a different  
resolution of the image.

39. (New) The method of claim 38, wherein the levels that are associated with lower  
resolution are associated with higher orders.

40. (New) The method of claim 34, wherein the act of providing wavelet coefficients  
comprises:

providing intensity level coefficients that indicate pixel intensities of the image; and  
transforming the intensity level coefficients into wavelet subbands.

41. (New) An article comprising a storage medium readable by a processor-based  
system, the storage medium storing instructions to cause a processor to:

provide wavelet coefficients that indicate an image, the bits of each wavelet coefficient  
being associated with a different bit order so that each bit order is associated with one of the bits  
of each wavelet coefficient;

express the wavelet coefficients in signed binary representation;

determine whether a rate of coded bits exceed a predetermined bit rate; and

generate the coded bits to indicate zerotree roots that are associated with the bit orders  
and regulating the generation based on whether the rate exceeds the predetermined bit rate.

42. (New) The article of claim 41, wherein each bit order associated with only one of  
the bits of each wavelet coefficient.

43. (New) The article of claim 41, the storage medium comprising instructions to  
cause the processor to:

determine which of the bits indicate zeros, and

classify each zero as either an isolated zero or a zerotree root.

44. (New) The article of claim 43, wherein some of the wavelet coefficients are descendants of some of the other wavelet coefficients, the storage medium comprising instruction to cause the processor to:

traverse a descendant tree from a bit associated with one of said some of the wavelet coefficients to bits associated with said other wavelet coefficients to locate the zerotree roots.

45. (New) The article of claim 41, the storage medium comprising instructions to cause the processor to:

produce different levels of the code, each level being associated with a different resolution of the image.

46. (New) The article of claim 45, wherein the levels that are associated with lower resolutions are associated with higher orders.

47. (New) A computer system comprising:

a processor; and

a memory storing a program to cause the processor to:

provide wavelet coefficients that indicate an image, the bits of each wavelet coefficient being associated with a different bit order so that each bit order is associated with one of the bits of each wavelet coefficient;

express the wavelet coefficients in signed binary representation;

determine whether a rate of coded bits exceed a predetermined bit rate; and

generate the coded bits to indicate zerotree roots that are associated with the bit orders and regulating the generation based on whether the rate exceeds the predetermined bit rate.

48. (New) The computer system of claim 47, wherein each bit order is associated with only one of the bits of each wavelet coefficient.

49. (New) The computer system of claim 47, wherein the program causes the processor to code the bits by determining which of the bits indicate zeros and classifying each zero as either an isolated zero or a zerotree root.

50. (New) The computer system of claim 49, wherein some of the wavelet coefficients are descendants of some of the other wavelet coefficients, and wherein the processor determines which of the bits are zeros by traversing a descendant tree from a bit associated with one of said some of the wavelet coefficients to bits associated with said other wavelet coefficients to locate the zerotree root.

51. (New) The computer system of claim 47, wherein the program causes the processor to provide the wavelet coefficients by producing different levels of the code, each level being associated with a different resolution of the image.